

Fig. 1

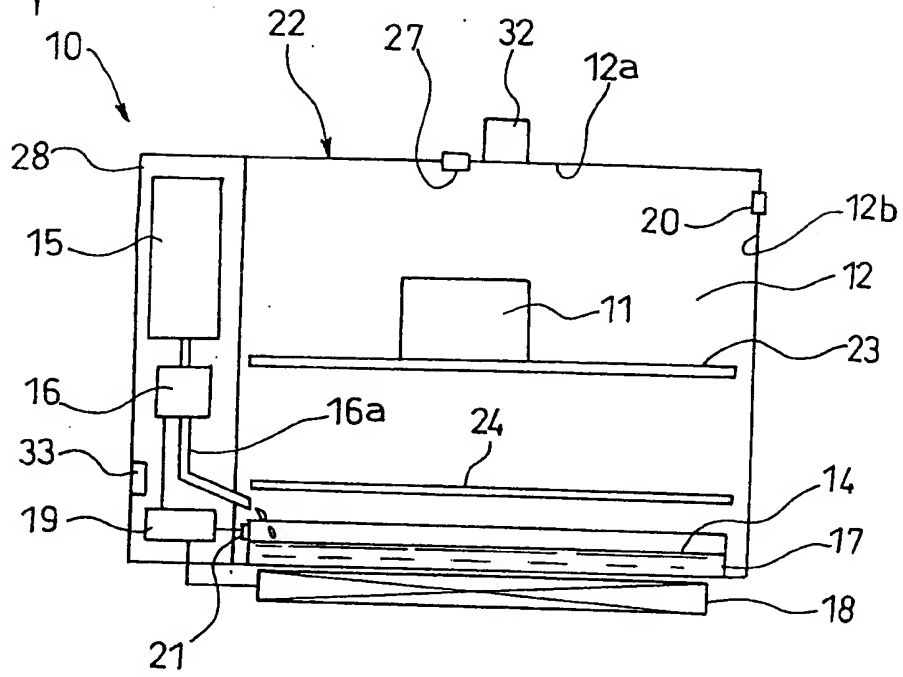


Fig. 2

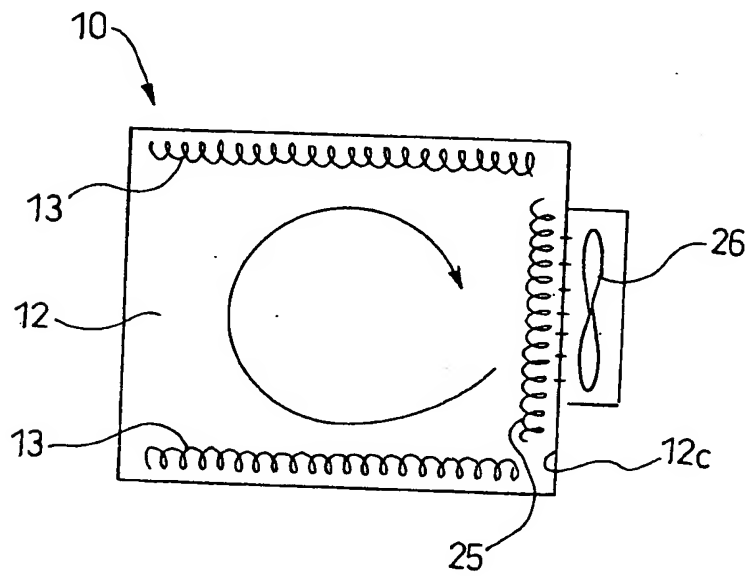


Fig 3

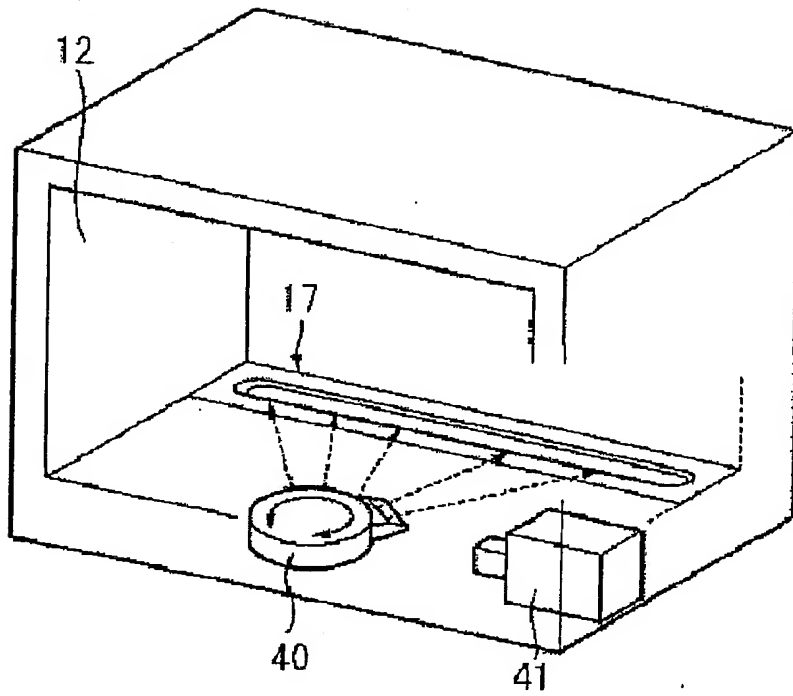
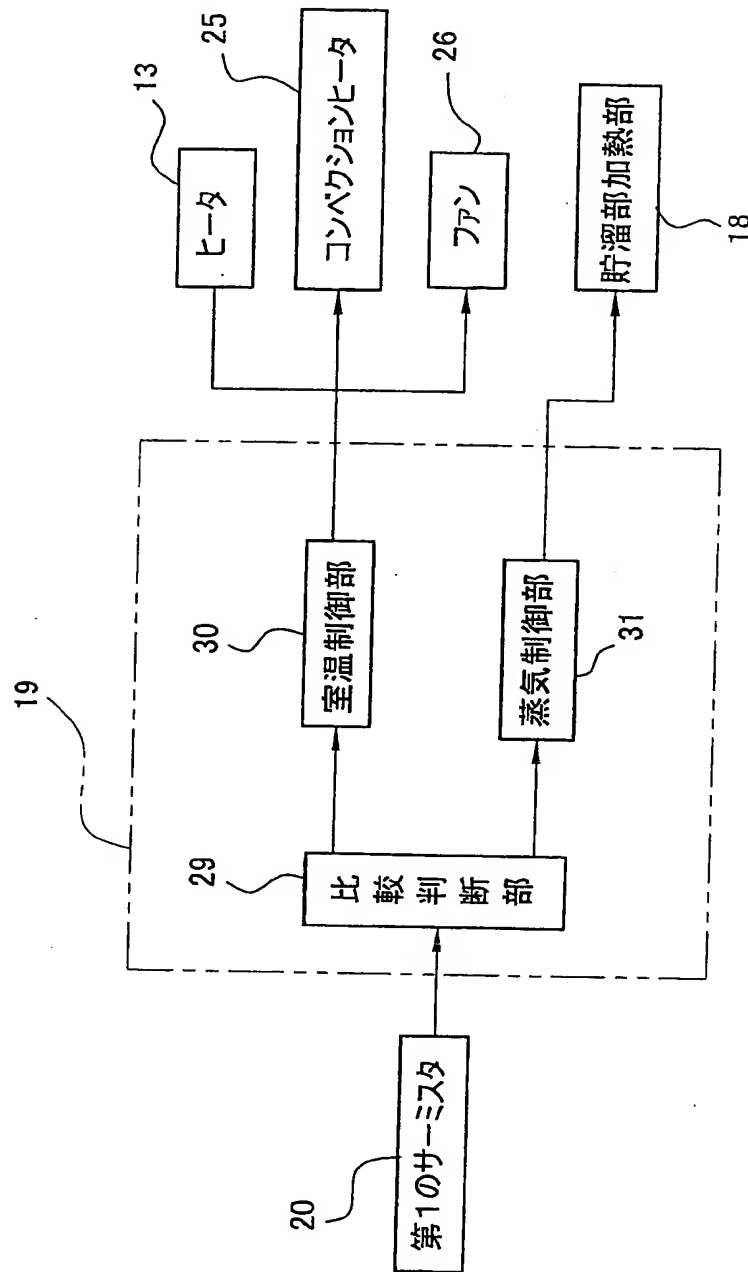


Fig. 4



[Fig. 4]

- 20: First thermistor
- 29: Compare and judge portion
- 30: Heating chamber temperature control portion
- 31: Steam supply portion
- 13: Heater
- 25: Convection heater
- 26: Fan
- 18: Storage part heating part

Fig 5(A)

① ●庫内温度が低い場合

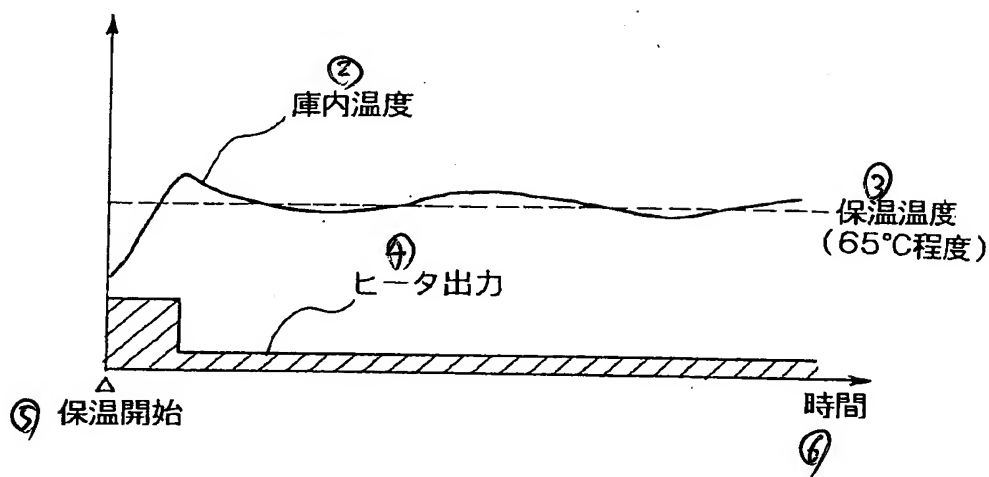
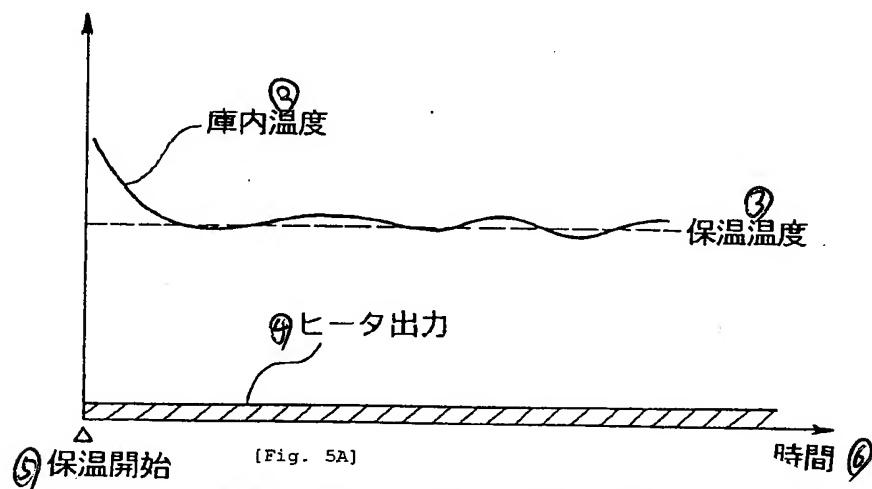


Fig 5(B)

① ●庫内温度がもともと高い場合  
(オープン調理終了後など)



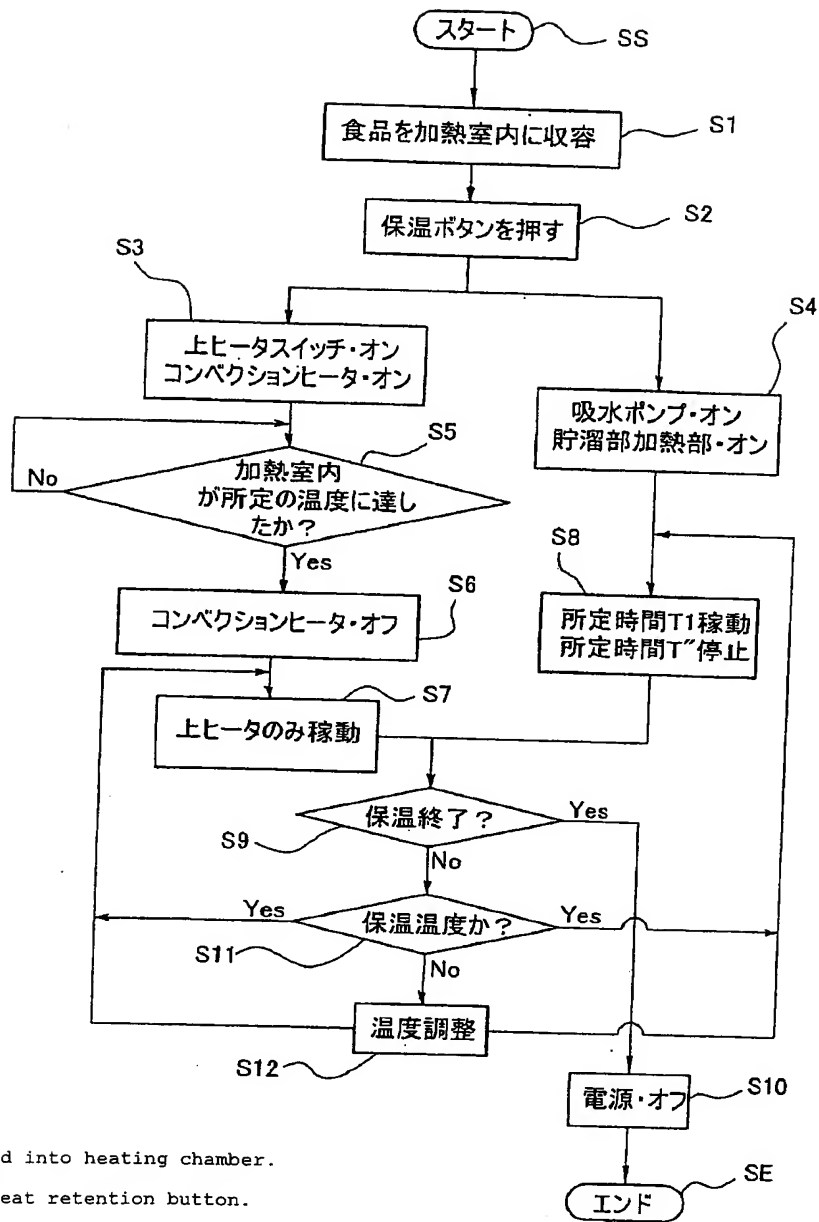
[Fig. 5A]

- ① When heating chamber interior temperature is low
- ② Heating chamber interior temperature
- ③ Heat retaining temperature (about 65°C)
- ④ Heater output
- ⑤ Start of heat retention
- ⑥ Time

[Fig. 5B]

- ① When heating chamber interior temperature is originally high  
(For example, after end of oven cooking)
- ② Heating chamber interior temperature
- ③ Heat retaining temperature
- ④ Heater output
- ⑤ Start of heat retention
- ⑥ Time

Fig 6



[Fig. 6]

SS: Start

S1: Store food into heating chamber.

S2: Depress heat retention button.

S3: Turn on upper heater switch and convection heater.

S4: Turn on water pump and storage part heating part.

S5: If heating chamber interior temperature has reached given temperature?

S6: Turn off convection heater.

S7: Operate only upper heater.

S8: Operate water pump and storage part heating part for given time T1 and stop them for given time T'.

S9: If heat retention is ended?

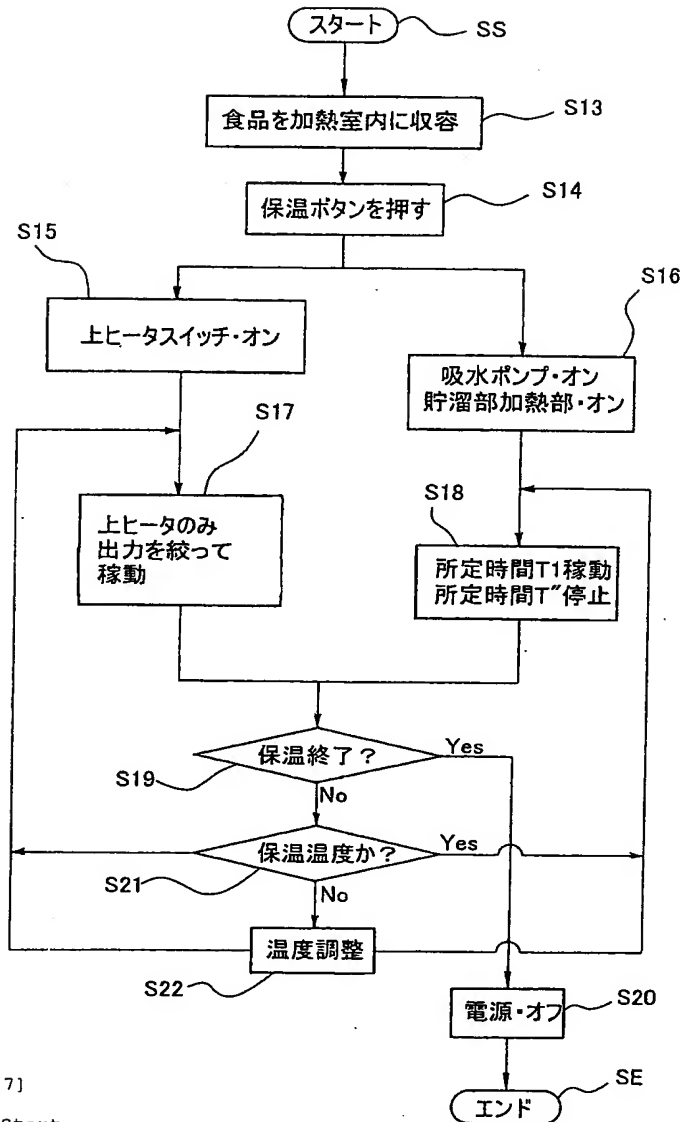
S11: If heating chamber interior temperature is given heat retaining temperature?

S12: Adjust temperature.

S10: Turn off power supply.

SE: End

[図7]



[Fig. 7]

SS: Start

S13: Store food into heating chamber.

S14: Depress heat retention button.

S15: Turn on upper heater switch.

S16: Turn on water pump and storage part heating part.

S17: Operate only upper heater while turning down output.

S18: Operate water pump and storage part heating part for given time T1 and stop them for given time T''.

S19: If heat retention is ended?

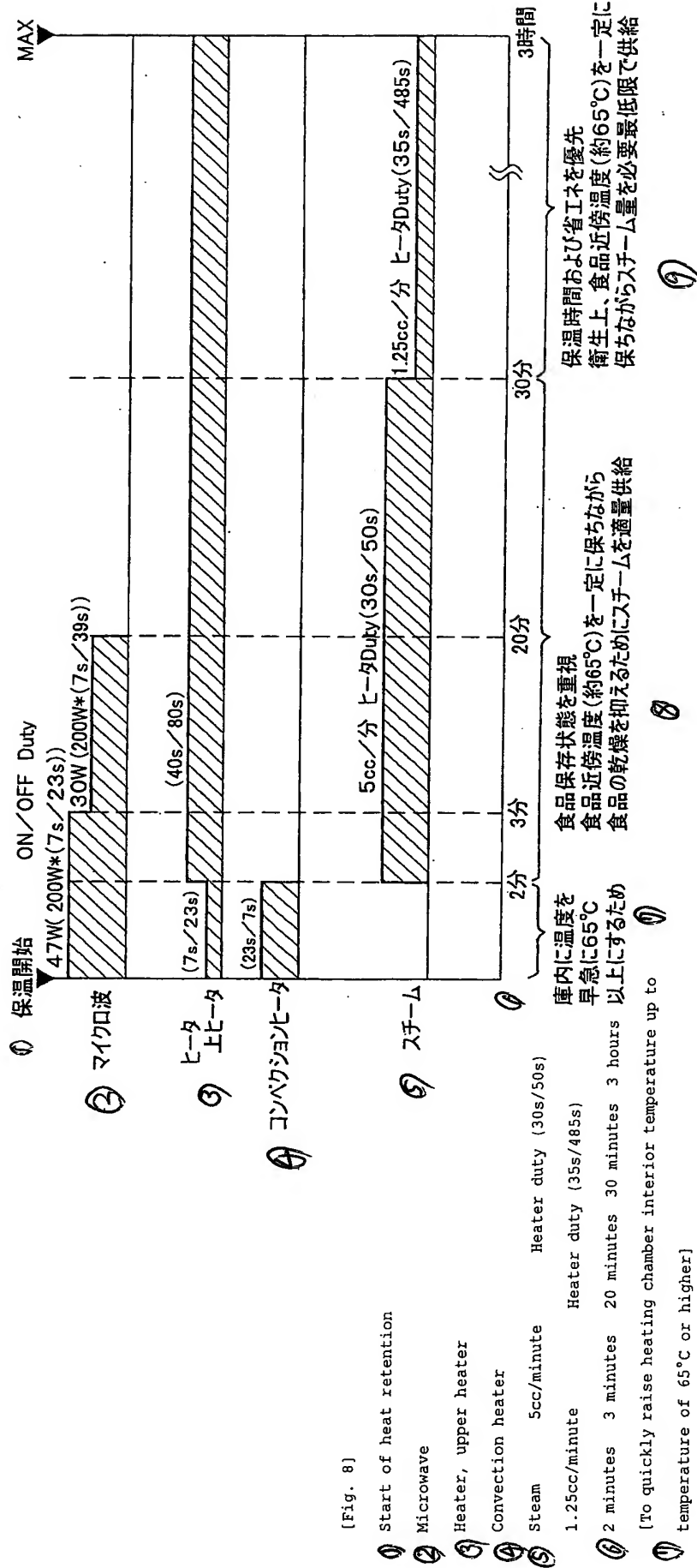
S21: If heating chamber interior temperature is heat retaining temperature?

S22: Adjust temperature.

S20: Turn off power supply.

SE: End.

Fig. 8



[Fig. 8]

① Start of heat retention

② Microwave

③ Heater, upper heater

④ Convection heater

⑤ Steam 5cc/minute Heater duty (30s/50s)

1.25cc/minute Heater duty (35s/485s)

⑥ 2 minutes 3 minutes 20 minutes 30 minutes 3 hours

⑦ [To quickly raise heating chamber interior temperature up to temperature of 65°C or higher]

⑧ [Priority is given to food reserving state.]

⑨ [While maintaining food vicinity temperature (about 65°C) constant, proper amount of steam is supplied to prevent food from drying.]

⑩ [Priority is given to heat retention time and energy saving.]

⑪ [For hygiene purpose, while maintaining food vicinity temperature (about 65°C) constant, necessary minimum amount of steam is supplied.]





Fig. 10

① 食品の菌増殖温度と加熱温度における死滅時間

② 食品の菌	⑦ 最適増殖温度	増殖時間⑪	⑮ 加熱温度	⑯ 死滅時間
③ 通常の菌	⑧ 約30~40℃	約30分⑫	—	—
④ 増殖の速い菌	⑨ 腸炎ビブリオ	約7~8分⑬	⑭ 約60℃	⑰ 約30℃
	⑩ 大腸菌	約15分⑭	⑭ 約60℃	⑰ 約30℃

⑱ 増殖時間=対数期(細胞数約10<sup>2</sup> /g → 約10<sup>8</sup> /g に要する時間)

[Fig. 10]

① Food bacteria multiplication temperature and extinction time in heating temperature

② [Bacteria of food]

③ Normal bacteria

④ Quick multiplication bacteria (Enteritis vibrio) (Colon bacillus)

⑤ [Optimum multiplication temperature]

⑥ about 30 ~ 40℃ ⑦ about 38℃ ⑧ about 20 ~ 40℃

⑨ [Multiplication time]

⑩ about 30 minutes

⑪ about 7 ~ 8 minutes

⑫ about 15 minutes

⑬ [Heating temperature]

⑭ about 60°

⑮ [Extinction time]

⑯ about 30℃

⑱ Multiplication time = logarithmic number period (time

necessary for the number of cells about 10<sup>2</sup>/g → about 10<sup>8</sup>/g)

Fig. 11

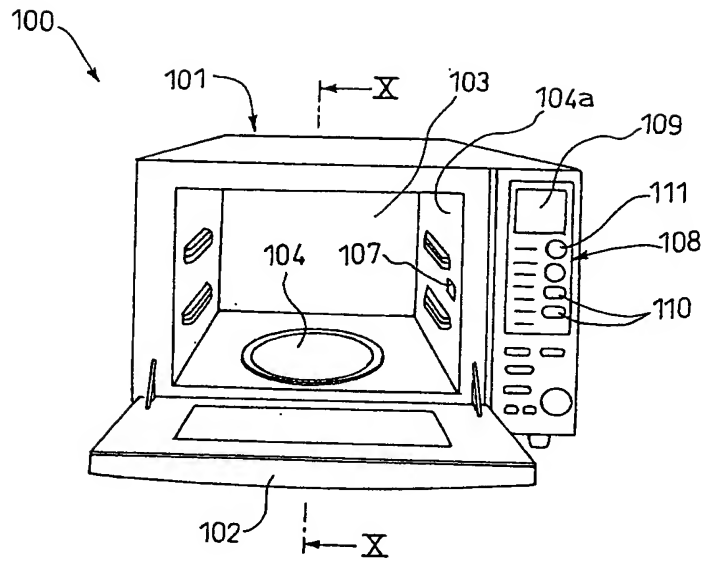


Fig. 12

